



UNITED ARAB REPUBLIC

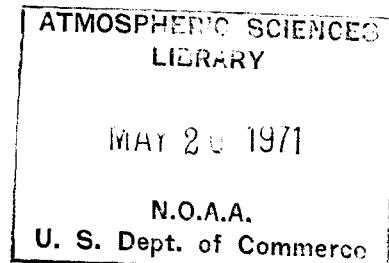
# MONTHLY WEATHER REPORT

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VOLUME 9

NUMBER 4

APRIL, 1966



U.D.C. 551. 506.1 (62)

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METEOROLOGICAL DEPARTMENT  
CAIRO

**National Oceanic and Atmospheric Administration**

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## **PUBLICATIONS OF THE METEOROLOGICAL DEPARTMENT OF THE UNITED ARAB REPUBLIC—CAIRO**

In fulfilment of its duties as the National Meteorological Service for the U.A.R., the Meteorological Department issues several reports and publications on weather, climate and agrometeorology. The principal publications are described on this page.

Orders for publication should be addressed to :  
“The Director General, Meteorological Department, Kubri-el-Qubqeh—CAIRO”.

### **THE DAIDY WEATHER REPORT**

This report is printed daily in the Meteorological Department. It contains surface and upper air observations carried by the relevant networks of the Republic and made at the four main synoptic hours of observations (00, 06, 12 and 18 U.T.) ; as well as ship observations over the Eastern Mediterranean and north Red Sea made at the same times.

It also contains two surface synoptic charts at 00 and 12 U.T. and two upper air charts for the standard isobaric surfaces 700 & 500 mbs. at both 00 and 12 U.T.

In compliance with resolution 8 (EC-XIII) of WMO, foreign upper air data included in Cairo Subregional Broadcast are also given in this report.

### **THE MONTHLY WEATHER REPORT**

First issued in 1909, the Monthly Weather Report served to give a brief summary of the weather conditions that prevailed over Egypt during the month, with a table showing the mean values for few meteorological elements and their deviation from the normal values. From 1954 to 1957 this report was in a rapid state of development and extension resulting into a voluminous report on January 1958 giving surface, upper and agro-meteorological data for U.A.R.

### **THE AGRO-METEOROLOGICAL ABRIDGED MONTHLY REPORT**

Gives a review of weather experienced in the agro-meteorological stations of the U.A.R. as well as monthly values of certain elements.

### **THE ANNUAL REPORT**

This report gives annual values and statistics for the various meteorological elements, together with a summary of the weather conditions that prevailed during months of the year.

### **CLIMATOLOGICAL NORMALS FOR EGYPT**

The normals, long averages and statistical data are given in one edition for stations in Egypt from the date of opening of each station up to 1945. A new voluminous edition was issued in March 1968 which brings normals and mean values up till 1960.



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CAIRO

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# GENERAL SUMMARY OF WEATHER CONDITIONS

APRIL 1966

Alternatively rather cold and rather hot intervened with many khamsin disturbances whose transits were associated with sandrising and whose breakdowns were followed by light rain in the southern parts on the 15th and in NW Mediterranean coast on the 30th.

## GENERAL DESCRIPTION OF WEATHER

The prevailing weather was alternatively rather cold and rather hot and a large number of khamsin disturbances prevailed over the country ranging between seven disturbances of short durations over the northern parts (with their peaks round the 4th, 11th, 14th, 18th, 22nd, 26th & 28th respectively) and five disturbances of rather moderate durations over the middle and southern parts (with their peaks round the 4th, 14th, 18th, 24th & 29th respectively). Excessive maximum temperatures were experienced round peak of the 3rd prevailing heat wave over the northern parts and round peaks of the 4th & 5th prevailing waves over the middle and southern parts of the Republic.

The break down of the prevailing Khamsin waves was associated with occasional rising sand or sandstorms and was followed by light showers in particular over the southern parts on the 15th and over the Northwest coast on the 30th.

## PRESSURE DISTRIBUTION

The prevailing pressure distributions over the surface map this month can be summarized in the following pressure systems.

— The Atlantic anticyclonic ridge over West Europe & NW Africa.

— The Siberian anticyclonic ridge over South-west Russia.

— The travelling Atlantic deep low pressure systems through Urasia.

— The travelling low pressure systems over the Mediterranean and adjacent areas.

— The rather stationary low pressure systems over Arabia Sudan & the great Africa Sahara.

On the other hand in the 700 & 500 mb levels, the prevailing upper pressure distributions were confined in the two deep upper lows over North Atlantic & North Russia, the transitory upper secondaries or upper troughs) between 45 °N & 30 °N latitudes and the upper high pressure belt beneath 30 °N.

The transitory low pressure systems through the Mediterranean this month developed over north-west Africa (over Algiers & Tunisia) as secondary depressions to the main deep Atlantic primaries round the 3rd, 9th, 13th, 17th, 20th & 26th respectively. These depressions were reflected aloft up to the 300 mb level. They proceeded eastwards with the exception of the last depression and attained Central Mediterranean round the 4th, 10th, 14th, 19th & 21st respectively. The fourth depression died at Central Mediterranean while the rest four proceeded eastwards and traversed East Mediterranean round the 5th, 11th, 15th & 24th. The last depression followed a southeast track over North Africa, traversed Tripoli by the 27th, the Western Desert by the 28th and East Mediterranean by the 29th.

For the month as a whole the barometric pressure over East Mediterranean in general and the U.A.R. in particular was rather subnormal in general.

The highest wind speed in the upper air at Mersa Matruh, Helwan & Aswan was 139, 148 & 140 Knots on the 3rd, 29th, & 2nd respectively.

#### SURFACE WIND

The prevailing surface winds were rather south / southwest in advance of the travelling khamsin depressions, westerly during their transits and generally north-westerly at their rears. Winds were light / moderate in general, but occasionally fresh / strong in association with transits of travelling depressions particularly over the northwest coast, Canal Zone and Red Sea districts. Calms were frequent most night and early morning intervals over scattered parts.

Gales were reported at : Sidi Barrani on the 4th ; El Kasr on the 14th ; Ras El Hikma on the 4th & 14th ; Dabaa and Kabrit on the 14th & 29th ; Fayed on the 12th ; Siwa on the 14th and at Hurghada on the 16th, 19th & 20th.

#### TEMPERATURE

Maximum temperature was remarkably changeable with large variability and its values ranged between 18°C & 38°C in the northern parts, between 22 °C & 40 °C in the middle parts and between 28 °C & 43 °C in the southern parts.

The absolute maximum temperature for the Republic was 45.0 °C reported at Kom Ombo on the 30th.

Minimum temperature was similarly excessively changeable but with rather moderate variability and its values ranged between 8 °C & 18 °C in the northern parts, between 10 °C & 24 °C in the middle parts and between 8 °C & 22 °C in the southern parts.

The absolute minimum temperature for the Republic was 4.7 °C reported at Shebin El Kom on the 3rd.

#### PRECIPITATION

This month was almost rainless with the exception of light frontal showers over the southern parts on the 15th and light instability showers over the northwest coast round the 30th and the monthly rain was subnormal.

The Maximum daily rainfall was 2.6 mm reported at Siwa on the 27th and it was also the maximum monthly rainfall for the Republic.

M. F. TAHA

Under Secretary of State  
Director General  
Meteorological Department

Cairo, 17 / 1 / 1971

**TABLE A 1.—MONTHLY VALUES OF THE ATMOSPHERIC PRESSURE, AIR TEMPERATURE,  
RELATIVE HUMIDITY, BRIGHT SUNSHINE DURATION & PICHE EVAPORATION**

**APRIL — 1966**

STATION	Atmospheric Pressure (mbs) M.S.L		Air Temperature °C								Relative Humidity %		Bright Sunshine Duration (Hours)			Picke Evaporation mms. Mean	
			Maximum		Minimum			Dry Bulb		Wet Bulb				Total Actual	Total Possible	%	
	Mean	D.F. Normal or Average	(A) Mean	D.F. Normal or Average	(B) Mean	D.F. Normal or Average	A+B 2	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average	Mean	D.F. Normal or Average		
Sallum . . . . .	1011.8	-1.6	25.0	+1.3	14.3	+0.8	19.6	19.1	+0.2	14.0	+0.2	54	- 2	—	—	—	9.9
Mersa Matruh (A)	1012.4	-2.0	24.0	+1.3	12.6	+0.6	18.3	18.0	+0.7	14.0	+0.6	62	- 2	—	—	—	8.8
Alexandria . . (A)	1012.5	-1.6	26.2	+2.4	13.7	+0.3	20.0	19.1	+0.9	14.8	+0.2	60	- 6	287.8	388.2	74	8.1
Port Said . . (A)	1012.5	-1.2	23.0	+0.5	17.4	+0.6	20.2	19.7	+0.9	16.3	+0.8	70	0	261.4	388.2	68	6.7
El Arish . . . . .	1013.0	+0.1	25.2	+1.6	13.5	+0.2	19.4	19.4	+0.8	15.6	-1.0	64	- 3	—	—	—	6.0
Ghazza. . . . .	1012.6	-0.2	25.3	+3.3	14.3	+0.5	19.8	19.4	+1.2	15.1	-0.1	61	-10	274.9	388.8	71	6.6
Tanta . . . . .	1011.7	-1.0	28.9	+1.1	12.4	+1.6	20.6	19.9	+1.2	14.3	+0.4	50	- 4	297.5	387.8	77	6.6
Cairo . . . . (A)	1012.4	-1.0	30.2	+2.0	15.3	+1.3	22.8	22.7	+1.8	14.1	-0.4	33	-13	—	—	—	21.8
Fayoum . . . . .	1012.2	-0.5	31.4	+1.7	14.7	+1.5	23.0	22.7	+1.4	14.5	+0.4	36	- 4	—	—	—	10.0
Minya . . . (A)	1012.0	-0.8	32.2	+1.6	12.8	+0.9	22.5	22.5	+1.3	13.7	-0.2	32	- 9	333.8	385.1	87	11.0
Assyout . . . (A)	1011.4	-0.7	32.9	+1.1	16.0	+1.1	24.4	24.3	+1.1	13.8	+0.5	24	0	—	—	—	18.7
Luxor . . . (A)	1010.5	0.0	35.9	+1.3	15.9	+0.3	25.9	26.1	+0.3	14.8	-0.3	23	- 3	—	—	—	14.0
Aswan . . . (A)	1009.8	+0.1	36.1	+1.0	16.4	-1.3	26.2	27.1	+0.3	14.1	+0.8	16	+ 4	—	—	—	19.0
Siwa. . . . .	1011.7	-1.7	30.2	+0.4	14.0	+1.8	22.1	23.1	+1.5	13.4	+0.3	27	- 5	—	—	—	17.7
Bahariya . . . .	1012.2	-0.2	31.2	+1.2	15.2	+2.4	23.2	23.9	+1.5	13.5	+0.2	24	- 5	—	—	—	15.1
Farafra . . . . .	1013.0	-0.9	32.7	+1.5	13.4	+0.1	22.8	22.9	+0.2	13.0	+0.4	25	+ 2	—	—	—	18.2
Dakhla . . . . .	1011.8	+0.6	34.0	+1.2	12.6	-1.4	23.3	23.7	-0.2	12.7	+0.1	20	+ 2	—	—	—	18.2
Kharga . . . . .	1011.1	-0.2	34.7	+1.4	16.2	+0.7	26.0	25.8	+1.0	13.3	-0.3	21	- 2	328.0	381.7	86	20.5
Tor . . . . .	1011.1	+0.3	29.2	+1.3	16.9	+0.5	23.0	23.0	+0.2	16.1	+0.6	45	- 6	—	—	—	13.5
Hurghada . . . .	1010.7	-0.2	28.6	+2.3	15.9	-0.3	22.2	22.6	+0.3	15.7	0.0	44	- 3	—	—	—	17.3
Quseir . . . . .	1011.4	+0.8	27.6	+0.4	18.8	-0.7	23.2	23.6	+0.1	16.3	-0.4	43	- 3	—	—	—	16.8

TABLE A 2.—MAXIMUM AND MINIMUM AIR TEMPERATURES

APRIL 1936

STATION	Maximum Temperature °C						Mean Grass Min. Temps.	D. From Normal	Minimum Temperature °C						No. of Days with Min. Temp.				
	Highest	Date	Lowest	Date	No. of Days with Max-Temp.					Highest	Date	Lowest	Date	< 10	< 5	< 0	< - 5		
					> 25	> 30	> 35	> 40	> 45										
Sallum . . . . .	35.8	11	17.6	1	10	5	1	0	0	13.8	—	18.7	4	9.4	2	1	0	0	0
Mersa Matruh . . . . (A)	37.6	14	17.8	1,2	10	5	1	0	0	—	—	17.1	28	7.5	2	6	0	0	0
Alexandria . . . . (A)	37.8	14	19.0	2	14	6	1	0	0	—	—	16.8	29-30	9.0	8	3	0	0	0
Port Said . . . . (A)	33.5	29	18.5	2	6	2	0	0	0	19.1	—	20.9	25-29	14.3	8	0	0	0	0
El Arish . . . . .	41.8	14	19.2	3	14	4	2	1	0	12.1	—	18.2	30	9.3	3	1	0	0	0
Ghazza . . . . .	40.0	25	19.3	3	12	6	2	0	0	13.5	—	18.2	25	9.6	3	1	0	0	0
Tanta . . . . .	38.8	14	20.8	2	22	11	3	0	0	—	—	17.7	29-30	6.5	3	6	0	0	0
Cairo . . . . . (A)	39.7	14	20.5	2	25	17	4	0	0	—	—	22.8	14	10.2	2	0	0	0	0
Fayoum . . . . .	40.2	14	22.0	2	26	17	8	1	0	11.0	—	21.2	29	9.1	3	2	0	0	0
Minya . . . . (A)	41.2	24	22.6	2	27	17	9	1	0	10.4	—	19.5	29	6.9	3	3	0	0	0
Assyout . . . . (A)	42.0	14	24.4	7	28	21	9	2	0	17.9	—	25.8	29	8.7	3	2	0	0	0
Luxor . . . . (A)	43.3	29	25.2	7	30	28	17	5	0	10.9	—	22.8	30	8.8	3	1	0	0	0
Aswan . . . . (A)	43.4	29	28.5	7	31	27	17	7	0	—	—	22.4	15	11.5	3	0	0	0	0
Siwa . . . . .	41.2	13	22.9	2	27	19	7	2	0	12.3	—	21.0	14	7.2	2	3	0	0	0
Bahariya . . . . .	41.1	14-24	23.6	2	28	19	9	2	0	13.6	—	23.0	29	10.0	2	0	0	0	0
Farafra . . . . .	41.9	14	23.9	2	29	18	9	3	0	12.8	—	20.3	29	7.6	3	3	0	0	0
Dakhla . . . . .	41.8	24-28	26.0	2	30	23	12	4	2	—	—	20.9	29	5.8	3	6	0	0	0
Kharga . . . . .	41.4	14	26.6	2,7	30	23	15	7	2	13.6	—	26.2	30	11.0	3	0	0	0	0
Tor . . . . .	38.3	15	21.5	2	27	11	6	0	0	—	—	21.1	30	10.6	3	0	0	0	0
Hurghada . . . . .	33.6	24	23.2	2	26	10	0	0	0	15.0	—	20.3	30	10.5	3,4	0	0	0	0
Quseir . . . . .	32.8	29	22.9	3	26	6	0	0	0	17.1	—	22.5	30	14.6	4	0	0	0	0

METEOROLOGICAL

DEPARTMENT OF THE ARAB REPUBLIC OF EGYPT

TABLE A 3.—SKY COVER AND RAINFALL

APRIL — 1966

Station	Mean Sky Cover (Oct)					Rainfall (mm)											
	00 U.T.		06 U.T.		12 U.T.	18 U.T.	Daily Mean	Total Amount	Dev. From Normal	Max. Fall in one day		Number of days with Amount of Rain					
										Amount	Date	<0.1	≥0.1	≥1.0	≥5.0	≥10	≥25
Sallum . . . . .	2.0	3.0	3.8	2.4	2.8	0.2	— 0.9	0.2	30	0	1	0	0	0	0	0	0
Mersa Matruh . . . . . (A)	2.4	3.1	3.8	3.8	3.0	Tr.	— 2.5	Tr.	28-30	2	0	0	0	0	0	0	0
Alexandria . . . . . (A)	3.1	3.8	3.4	3.6	3.5	0.2	— 2.9	0.2	30	0	1	0	0	0	0	0	0
Port Said . . . . . (A)	1.2	2.6	2.0	1.2	1.7	0.0	— 3.1	0.0	—	0	0	0	0	0	0	0	0
El Arish . . . . .	2.5	3.3	2.9	2.5	2.9	0.0	— 6.6	0.0	—	0	0	0	0	0	0	0	0
Ghazza . . . . .	2.4	3.0	3.5	2.5	2.9	0.0	— 8.5	0.0	—	0	0	0	0	0	0	0	0
Tanta . . . . .	0.8	2.2	2.9	1.4	1.9	0.0	— 2.1	0.0	—	0	0	0	0	0	0	0	0
Cairo . . . . . (A)	1.7	3.2	2.8	1.4	2.4	0.0	— 0.8	0.0	—	0	0	0	0	0	0	0	0
Fayoum . . . . .	—	1.7	2.2	1.7	—	0.0	— 0.7	0.0	—	0	0	0	0	0	0	0	0
Minya . . . . . (A)	0.8	1.6	1.7	1.1	1.3	0.0	— 0.4	0.0	—	0	0	0	0	0	0	0	0
Asyout . . . . . (A)	0.9	1.7	1.6	1.2	1.3	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0	0
Luxor . . . . . (A)	1.1	1.5	1.5	1.3	1.4	0.3	+ 0.3	0.3	15	0	1	0	0	0	0	0	0
Aswan . . . . . (A)	1.1	1.4	1.5	1.3	1.4	0.1	+ 0.1	0.1	15	0	1	0	0	0	0	0	0
Siwa . . . . .	1.6	1.4	3.0	2.1	2.1	2.6	+ 0.8	2.6	27	2	1	1	0	0	0	0	0
Bahariya . . . . .	1.4	1.9	1.6	1.3	1.6	0.0	— 0.5	0.0	—	0	0	0	0	0	0	0	0
Farafra . . . . .	—	1.9	2.3	1.6	—	0.0	— 0.1	0.0	—	0	0	0	0	0	0	0	0
Dakhla . . . . .	0.8	1.1	1.3	1.0	1.2	0.0	— Tr.	0.0	—	0	0	0	0	0	0	0	0
Kharga . . . . .	0.8	1.4	1.3	1.0	1.2	0.9	— Tr.	0.0	—	0	0	0	0	0	0	0	0
Tor . . . . .	0.3	1.4	1.9	0.9	1.2	0.0	+ 0.3	0.0	—	0	0	0	0	0	0	0	0
Qurnah . . . . .	0.6	1.4	1.3	1.3	1.1	0.2	+ 0.2	0.2	16	0	1	0	0	0	0	0	0
Quseir . . . . .	0.9	1.4	1.3	0.9	0.7	Tr.	+ 0.1	Tr.	15	1	0	0	0	0	0	0	0

TABLE A 4—DAYS OF OCCURRENCE OF MISCELLANEOUS WEATHER PHENOMENA.

APRIL—1966

Station	Precipitation				Front	Thunderstorm	Mist Vis ≥ 1000 metres	Fog Vis < 1000 Metres	Haze Vis ≥ 1000 Metres	Thick Haze Vis < 1000 Metres	Dust or Sandrising Vis ≥ 1000 Metres	Dust or Sandstorm Vis < 1000 Metres	Gale	Clear Sky	Cloudy Sky		
	Rain	Snow	Ice Pellets	Hail													
Sallum . . . . .	1	0	0	0	0	0	0	0	0	0	6	2	0	11	2	2	
Mersa Matruh . . . . .	(A)	0	0	0	0	0	2	2	1	2	6	3	0	9	2	2	
Alexandria . . . . .	(A)	1	0	0	0	0	0	5	0	4	6	2	0	8	4	2	
Port Said . . . . .	(A)	0	0	0	1	0	0	0	0	4	2	0	0	18	2	2	
El Arish . . . . .	(A)	0	0	0	0	0	7	1	1	6	5	0	0	12	2	1	
Ghazza . . . . .	0	0	0	0	0	0	4	0	1	0	1	0	0	10	1	1	
Tanta . . . . .	0	0	0	0	0	0	1	0	0	0	0	0	0	19	1	1	
Cairo . . . . .	0	0	0	0	0	0	5	0	3	0	8	0	0	14	0	0	
Fayoum . . . . .	0	0	0	0	0	0	0	0	1	0	0	0	0	0	—	—	
Minya . . . . .	(A)	0	0	0	0	0	0	0	3	0	6	0	0	0	23	0	0
Asyout . . . . .	(A)	0	0	0	0	0	0	0	10	0	8	0	0	0	22	0	0
Luxor . . . . .	(A)	1	0	0	0	0	1	0	0	2	6	1	0	0	23	0	0
Aswan . . . . .	(A)	1	0	0	0	0	0	0	0	0	9	0	0	0	22	0	0
Siwa . . . . .	1	0	0	0	0	0	1	0	0	0	8	1	0	16	1	0	
Bahariya . . . . .	0	0	0	0	0	0	0	0	0	0	4	0	0	21	0	0	
Farafra . . . . .	0	0	0	0	0	0	0	0	0	0	5	0	0	—	1	0	
Dakhla . . . . .	0	0	0	0	0	0	0	0	0	0	3	0	0	0	23	0	0
Kharga . . . . .	0	0	0	0	0	0	0	0	0	0	6	0	0	0	22	0	0
Tor . . . . .	0	0	0	0	0	1	1	0	0	0	8	0	0	0	21	0	0
Harghada . . . . .	1	0	0	0	0	0	0	0	0	0	4	0	0	3	25	0	0
Quseir . . . . .	0	0	0	0	0	0	0	0	0	0	5	0	0	0	24	0	1

**TABLE A 5.—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

APRIL — 1966

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													All directions
					345	015	045	075	105	135	165	195	225	255	285	315		
					/	/	/	/	/	/	/	/	/	/	/	/		
					014	044	074	104	134	164	194	224	254	284	314	344		
Sallum . . . . .	46	18	0	1—10	29	59	75	77	22	8	4	5	9	22	55	22	387	
				11—27	23	15	12	4	19	1	4	11	46	0	65	37	267	
				28—47	0	0	0	0	0	0	0	0	2	0	0	0	2	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	52	74	87	81	41	9	8	16	57	22	120	59	656	
Mersa Matruh (A)	3	7	0	1—10	45	34	20	17	33	25	21	15	13	58	68	42	391	
				11—27	45	3	10	12	80	24	2	19	7	14	17	71	304	
				28—47	0	0	0	0	1	0	2	6	1	1	2	2	15	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	90	37	30	29	114	49	25	40	21	73	87	115	710	
Alexandria (A)	16	0	0	1—10	35	35	41	54	63	17	18	14	13	19	79	69	457	
				11—27	8	21	27	20	14	1	2	5	12	16	90	31	247	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	43	56	68	74	77	18	20	19	25	35	169	100	704	
Port Said . . (A)	2	1	0	1—10	56	50	77	45	21	16	13	12	26	39	19	57	431	
				11—27	16	24	68	13	1	6	8	5	16	17	30	82	286	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	72	74	145	58	22	22	21	17	42	56	49	139	717	
Tanta . . . . .	21	0	12	1—10	53	35	70	125	67	11	20	21	35	40	82	99	664	
				11—27	2	2	0	0	0	0	0	4	3	10	0	2	23	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	61	37	70	125	67	11	20	25	38	50	82	101	687	
Cairo . . . (A)	15	6	6	1—10	49	65	50	39	12	10	8	14	18	16	55	68	404	
				11—27	11	29	61	37	7	14	19	34	4	26	25	22	289	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	60	94	111	76	19	24	27	48	22	42	80	90	693	
Fayoum . . . . .	10	5	0	1—10	218	79	35	11	12	20	86	27	48	33	41	87	697	
				11—27	1	0	0	0	0	0	0	0	1	0	0	6	8	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	219	79	35	11	12	20	86	27	49	33	41	93	703	
Minya . . . (A)	33	113	5	1—10	107	9	5	7	10	65	30	7	8	14	16	114	393	
				11—27	75	3	0	0	0	11	6	0	8	9	9	56	177	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	1	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	182	12	5	7	10	76	36	7	16	23	25	170	569	

**TABLE A 5. (contd.)—NUMBER IN HOURS OF OCCURRENCES OF CONCURRENT SURFACE WIND SPEED AND DIRECTION RECORDED WITHIN SPECIFIED RANGES**

APRIL — 1966

Station	Calm (hours)	Variable (hours)	Unrecorded (hours)	Wind speed in knots	Number in hours of occurrences of wind blowing from the ranges of directions indicated													
					345	015	045	075	105	135	165	195	225	255	285	315	All directions	
					/	/	/	/	/	/	/	/	/	/	/	/	/	
Anyout . . . (A)	5	1	0	1—10	8	25	21	42	33	24	16	16	31	154	115	63	548	
				11—27	4	4	1	1	11	11	13	3	5	0	44	69	165	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	1
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	12	29	22	43	44	35	29	19	36	154	159	132	714	
Luxor . . . (A)	14	8	0	1—10	65	67	49	22	38	32	34	28	31	72	105	129	672	
				11—27	0	0	2	0	3	0	2	1	1	2	13	2	26	28
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				All speeds	65	67	51	22	41	32	36	29	32	72	118	131	698	
Aswan . . . (A)	0	3	0	1—10	139	163	36	13	7	11	11	10	7	9	13	52	471	
				11—27	114	84	5	4	5	2	2	0	1	0	5	26	246	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	253	247	41	17	12	13	13	10	8	9	16	78	717	
Siwa . . . .	6	13	0	1—10	20	30	42	54	26	15	15	21	39	32	39	31	414	
				11—27	7	7	8	38	37	16	17	15	22	41	58	14	280	
				28—47	0	0	0	0	0	2	1	2	2	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	27	37	50	92	63	33	33	38	63	123	97	45	701	
Dakha . . . .	2	24	27	1—10	25	26	43	58	46	60	50	2	26	79	122	106	638	
				11—27	0	0	0	0	0	3	1	0	0	0	9	15	29	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	25	26	43	53	46	63	51	2	26	79	131	121	667	
Hurgada . . . .	14	2	2	1—10	6	26	15	11	21	36	15	5	8	17	43	23	226	
				11—27	86	0	13	4	33	21	0	0	0	2	106	160	425	
				28—47	14	0	0	0	0	0	0	0	0	0	0	37	51	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	106	26	28	15	54	53	15	5	8	19	149	220	702	
Quseir . . . .	9	29	5	1—10	84	42	12	13	14	34	20	9	9	56	78	89	460	
				11—27	134	5	1	0	0	1	0	0	0	0	4	71	216	
				28—47	0	0	0	0	0	0	0	0	0	0	0	0	0	
				≥48	0	0	0	0	0	0	0	0	0	0	0	0	0	
				All speeds	218	47	13	13	14	35	20	9	9	56	82	161	677	

TABLE B 1.—UPPER AIR CLIMATOLOGICAL DATA

APRIL — 1966

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mersa Matruh 0000 U.T.	Surface	30	* 1013 mb	1022 mb	* 1005 mb	30	15.1	20.1	11.0	30	10.9
	1000	30	137	210	71	30	16.0	27.0	11.6	30	10.1
	850	30	1511	1561	1447	30	12.8	24.4	4.8	24	-1.6
	700	30	3113	3182	3029	30	2.5	9.0	-6.7	18	-9.8
	600	30	4338	4420	4240	30	-6.3	-2.9	-12.9	15	-14.4
	500	30	5739	5840	5626	30	-16.3	-12.2	-21.9	18	-20.8
	400	30	7381	7500	7213	30	-28.7	-25.4	-35.5	14	-32.2
	300	30	9376	9515	9214	30	-44.5	-40.0	-50.2	—	—
	200	29	11951	12156	11808	29	-58.6	-51.4	-64.5	—	—
	150	28	13791	13922	13643	28	-59.2	-52.3	-68.7	—	—
	100	26	16300	16430	16177	26	-64.6	-60.0	-70.7	—	—
	70	21	18495	18639	18390	21	-62.9	-58.1	-68.1	—	—
	60	18	19458	19594	19320	17	-61.4	-57.4	-65.2	—	—
	50	15	20600	20731	20457	15	-59.9	-58.1	-63.5	—	—
	40	13	21296	22127	21863	13	-57.9	-54.0	-60.4	—	—
	30	9	23803	23938	23690	9	-55.5	-53.0	-57.6	—	—
	20	7	26420	26514	26325	7	-50.1	-45.0	-55.0	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 0000 U.T.	Surface	30	* 996 mb	1004 mb	* 989 mb	30	18.4	26.8	11.3	30	4.6
	1000	30	105	173	44	2	11.1	11.2	11.0	2	2.8
	850	30	1488	1519	1459	30	14.5	25.0	6.0	17	-4.3
	700	30	3097	3145	3017	30	4.3	10.0	-4.0	8	-11.6
	600	30	4331	4398	4217	30	-4.4	-0.6	-10.3	11	-15.2
	500	30	5740	5827	5601	30	-14.6	-10.1	-20.6	8	-24.5
	400	30	7389	7495	7224	30	-27.6	-24.1	-35.1	9	-34.6
	300	30	9393	9518	9199	30	-43.4	-39.4	-49.6	—	—
	200	30	12017	12157	11776	30	-58.2	-51.5	-63.7	—	—
	150	30	13816	13949	13574	30	-61.2	-56.0	-68.3	—	—
	100	30	16409	16431	16053	30	-66.1	-62.3	-72.6	—	—
	70	28	18515	18620	18220	28	-63.4	-58.0	-69.3	—	—
	60	27	19432	19575	19175	27	-62.7	-57.4	-67.3	—	—
	40	26	20565	20705	20301	26	-60.8	-56.5	-65.9	—	—
	50	25	21960	22100	21675	25	-58.7	-55.0	-64.1	—	—
	30	19	23783	23921	23577	19	-55.9	-51.2	-61.3	—	—
	20	17	26407	26564	26167	17	-49.5	-41.6	-57.0	—	—
	10	1	30621	—	—	1	-54.4	—	—	—	—

Note : Climatological upper air data for Aswan is missing since number of days of radiosonde sets at this station are less than the permissible number needed for calculating or processing monthly values

N = Number of observations of specified pressure surface.

\* The atmospheric pressure corrected to the elevation of the radiosonde stations.

TABLE B 1 (contd.)—UPPER AIR CLIMATOLOGICAL DATA

APRIL — 1966

Station	Pressure Surface Millibar	Altitude of Pressure Surface (gpm)				Temperature (°C)				Dew Point (°C)	
		N	Mean	Highest	Lowest	N	Mean	Highest	Lowest	N	Mean
Mars Matruh 1200 U.T.	Surface	30	1013mb	1022mb	1002mb	30	22.2	30.8	17.2	30	11.5
	1000	30	137	213	47	30	21.1	30.6	15.2	29	10.4
	850	30	1524	1568	1459	30	13.5	24.0	5.3	21	— 3.4
	700	30	3133	3191	3054	30	4.1	12.1	— 3.2	15	— 9.4
	600	30	4368	4436	4274	30	— 4.6	— 0.2	— 8.8	14	— 13.3
	500	30	5776	5852	5669	30	— 14.7	— 10.8	— 19.3	9	— 21.1
	400	30	7426	7510	7326	30	— 27.4	— 24.3	— 32.7	7	— 34.5
	300	29	9438	9547	9289	29	— 42.5	— 38.5	— 49.3	—	—
	200	26	12083	12220	11908	26	— 56.9	— 49.3	— 63.3	—	—
	150	26	13904	14049	13760	26	— 58.4	— 53.7	— 66.0	—	—
	100	24	16434	16556	16298	24	— 62.8	— 58.3	— 71.5	—	—
	70	15	18661	18800	18550	15	— 60.8	— 56.8	— 67.0	—	—
	60	12	19629	19740	19516	12	— 59.0	— 55.9	— 60.7	—	—
	50	12	20778	20880	20658	12	— 56.8	— 52.6	— 60.5	—	—
	40	7	22194	22291	22088	7	— 53.1	— 50.4	— 55.0	—	—
	30	5	24085	24153	24031	5	— 50.7	— 47.0	— 53.2	—	—
	20	1	26782	—	—	1	— 42.2	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—
Helwan 1200 U.T.	Surface	30	* 995mb	* 1002mb	* 990mb	30	29.2	39.5	20.0	30	2.4
	1000	30	102	158	48	2	20.4	21.1	19.6	2	4.0
	850	30	1504	1544	1469	30	16.1	27.0	6.6	19	— 2.9
	700	30	3120	3195	3064	30	5.5	11.4	— 1.2	10	— 13.2
	600	30	4359	4455	4292	30	— 3.6	0.8	— 10.1	3	— 15.8
	500	30	5774	5888	5700	30	— 13.2	— 8.9	— 19.3	6	— 20.4
	400	30	7432	7573	7315	30	— 26.0	— 22.0	— 33.7	6	— 31.1
	300	30	9450	9624	9271	30	— 41.6	— 37.7	— 47.6	1	— 40.4
	200	30	12093	12289	11900	30	— 57.0	— 51.8	— 63.4	—	—
	150	30	13907	14084	13753	30	— 59.6	— 54.4	— 67.9	—	—
	100	29	16420	16591	16292	29	— 65.9	— 59.1	— 69.0	—	—
	70	28	18578	18780	18500	28	— 63.0	— 58.6	— 69.5	—	—
	60	27	19566	19722	19437	27	— 60.8	— 57.8	— 63.5	—	—
	50	27	20710	20880	20575	27	— 57.4	— 52.5	— 60.2	—	—
	40	26	22128	22318	21982	26	— 55.0	— 51.0	— 58.6	—	—
	30	25	23906	24214	23812	25	— 51.9	— 46.4	— 59.1	—	—
	20	18	26667	26936	26421	18	— 46.8	— 40.8	— 54.3	—	—
	10	—	—	—	—	—	—	—	—	—	—

Note : Climatological upper air date for Aswan is missing since number of days of radiosonde sets at this station are less than the permissible number needed for calculating or processing monthly values

N = Number of observations of specified pressure surface.

\* The atmospheric pressure corrected to the elevation of the radiosonde stations.

**TABLE B 2.—MEAN AND EXTREME VALUES OF THE FREEZING LEVEL AND THE TROPOPAUSE;  
THE HIGHEST WIND SPEED IN THE UPPER AIR**

APRIL — 1966

Station	Freezing Level									First Tropopause									Highest wind speed							
	Mean			Highest			Lowest			Mean			Highest			Lowest			Altitude (gpm)		Pressure (mb.)		Direction (000—360)°		Speed in Knots	
	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Dew point (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Temperature (°C)	Altitude (gpm)	Pressure (mb.)	Altitude (gpm)	Pressure (mb.)	Altitude (gpm)	Pressure (mb.)		
0000 UT	(N)	(N)	(N)							(N)	(N)	(N)														
M. Matruh (A)	3414 (30)	676 (30)	-10.9 (18)	4120	642	—	2400	762	—	12198 (29)	200 (29)	-61.5 (29)	17718	80	-72.0	10460	256	-54.9	10050	264	226	128				
Helwan . . .	3643 (30)	655 (30)	-13.4 (13)	4280	608	-14.2	2620	741	-14.7	12363 (30)	193 (30)	-61.4 (30)	17650	81	-73.0	10570	244	-53.2	12220	198	260	146	— II —			
1200 U.T.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
M. Matruh (A)	3675 (30)	655 (30)	-11.3 (18)	4440	597	-11.9	2480	755	-6.0	12013 (26)	202 (26)	-58.6 (26)	13800	130	-55.8	10460	256	-51.8	11720	207	270	139				
Helwan . . .	3841 (30)	641 (30)	-14.3 (14)	4540	594	-17.1	2550	748	-5.3	12352 (30)	193 (30)	-59.8 (30)	15530	118	-66.6	10060	250	-50.4	11790	216	260	148				
Aswan . . (A)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

N = The number of cases the element has been observed during the month.

TABLE B 3.— NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES  
MERSA MATRUH (A) — APRIL 1966

Time	Pressure Surface Millibar	Wind between ranges of direction (000—360°)														Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (Knots)											
		315		015		045		075		105		135		165		195		225		255		285							
		014	044	014	044	074	/	104	/	134	/	164	/	194	/	224	/	254	/	284	/	314	/	344					
0000 U.T.	Surface	3	9	1	5	1	7	2	8	2	14	3	14	2	6	1	12	3	4	5	7	4	6	2	9	1	30	8	
	1000	4	10	0	—	1	5	1	9	5	24	1	11	2	20	0	—	1	8	2	12	9	14	3	9	1	30	14	
	850	1	17	0	—	0	—	0	—	0	—	0	—	4	16	2	32	7	7	21	7	25	4	23	4	17	1	30	21
	700	0	—	0	—	0	—	0	—	0	—	2	24	1	32	3	29	8	34	8	24	5	32	3	39	0	30	30	
	600	1	30	0	—	0	—	0	—	0	—	1	43	1	50	4	44	6	38	8	35	7	32	1	47	0	29	37	
	500	0	—	0	—	0	—	0	—	0	—	0	—	1	74	4	48	6	47	10	36	5	46	2	36	0	28	44	
	400	0	—	0	—	0	—	0	—	0	—	1	66	0	—	5	46	9	55	7	43	1	49	0	28	49			
	300	0	—	0	—	0	—	0	—	0	—	0	—	1	55	3	59	6	53	7	63	5	68	2	68	0	24	61	
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	72	7	68	4	85	0	—	0	15	74	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	52	3	65	1	43	0	—	0	5	58	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	33	0	—	0	—	0	—	0	1	33	
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	11	0	—	0	—	0	—	0	1	11	
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	17	0	—	0	—	0	—	0	1	17	
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	6	0	—	0	—	0	—	0	1	6	
	40	0	—	0	—	0	—	0	—	0	—	1	6	0	—	0	—	0	—	0	—	0	—	0	—	0	1	6	
	30	0	—	0	—	0	—	0	—	1	8	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	1	8	
	20	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	20	0	—	0	—	0	—	0	1	20	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1200 U.T.	Surface	7	13	3	10	3	12	0	—	6	18	0	—	0	—	0	—	0	—	2	20	1	10	7	20	1	30	15	
	1000	2	10	1	12	1	10	3	12	4	20	0	—	0	—	0	—	1	32	1	13	9	19	7	16	1	30	17	
	850	1	12	0	—	0	—	0	—	2	18	0	—	4	18	2	34	5	18	9	25	3	18	4	15	0	30	21	
	700	1	22	0	—	0	—	0	—	0	—	2	27	1	48	1	60	8	37	9	41	6	44	5	40	1	29	31	
	600	1	42	0	—	0	—	0	—	0	—	1	27	1	40	2	63	6	40	14	44	5	40	1	34	0	29	44	
	500	0	—	0	—	0	—	0	—	0	—	0	—	1	50	2	65	6	40	14	44	5	40	1	34	0	29	53	
	400	0	—	0	—	0	—	0	—	0	—	0	—	1	40	2	63	8	54	11	55	7	46	0	—	0	29	69	
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	0	—	2	63	7	74	8	78	9	61	1	53	0	27	69
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	80	2	89	3	86	7	71	0	—	0	13	78	
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	56	1	72	1	46	3	71	0	—	0	6	64	
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	2	54	0	—	0	0	3	
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	13	0	—	0	—	0	—	0	1	13	
	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

**TABLE B 3 (contd.)—NUMBER OF OCCURRENCES OF WIND DIRECTION WITHIN SPECIFIED RANGES AND THE MEAN SCALAR WIND SPEED AT THE STANDARD AND SELECTED PRESSURE SURFACES**  
**HELWAN — APRIL 1966**

Time	Pressure Surface Millibar	Wind between ranges of direction (000°—360°)												Number of calm winds	Total number of observations (TN)	Mean scalar wind speed (Knots)																						
		345			015			045			075			105			135			165			195			225			255			285			315			
		N	(ft)	N	m	N	(ft)	N	m	N	(ft)	N	m	N	(ft)	N	m	N	(ft)	N	m	N	(ft)	N	m	N	(ft)	N	m	N	(ft)	N	m					
0000 U.T.	Surface	5	8	6	5	4	11	4	9	3	8	0	—	0	—	0	—	1	4	0	—	0	—	3	10	4	30	7										
	1000	1	31	0	—	1	23	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	27							
	850	3	12	3	14	0	—	0	—	0	—	0	—	0	—	1	15	4	29	6	20	2	15	6	20	5	16	0	—	30	18							
	700	2	32	1	13	0	—	0	—	0	—	0	—	0	—	1	16	2	23	5	27	9	25	9	23	1	27	0	—	30	24							
	600	0	—	1	11	0	—	0	—	0	—	0	—	0	—	1	41	3	28	14	29	9	28	2	26	0	—	30	28									
	500	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	39	4	31	12	35	11	32	1	37	0	—	29	34									
	400	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	25	11	45	9	43	6	50	3	46	0	—	30	45									
	300	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	6	70	15	59	5	60	2	60	0	—	28	61									
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	87	13	93	5	64	1	46	0	—	22	83							
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	84	6	84	2	46	0	—	0	—	12	77									
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	32	1	46	1	22	0	—	3	33									
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	2	24	0	—	0	—	0	—	3	20									
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	26	1	26	1	26	0	—	2	26									
	50	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	14	1	31	0	—	2	22	—	—									
	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
1200 U.T.	Surface	3	11	1	8	2	10	1	11	0	—	0	—	0	—	7	10	3	5	2	8	4	12	6	9	1	30	9										
	1000	0	—	1	26	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	12	0	—	2	19									
	850	3	10	2	8	1	11	1	11	0	—	1	10	0	—	2	26	4	17	6	22	4	12	6	14	0	—	30	15									
	700	0	—	1	29	0	—	0	—	1	8	1	8	0	—	5	32	3	39	6	26	9	17	4	25	0	—	30	24									
	600	1	32	0	—	0	—	1	8	0	—	0	—	0	—	3	47	5	32	9	23	7	29	4	29	0	—	30	29									
	500	2	30	0	—	0	—	0	—	0	—	0	—	0	—	3	20	5	46	12	31	4	41	2	40	0	—	28	34									
	400	1	51	0	—	0	—	0	—	0	—	0	—	0	—	2	28	2	36	13	43	7	43	1	65	0	—	26	43									
	300	1	49	0	—	0	—	0	—	0	—	0	—	0	—	0	—	4	52	12	59	7	62	0	—	0	—	24	58									
	200	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	70	9	71	5	94	1	70	0	—	18	77											
	150	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	3	75	7	74	6	76	1	40	0	—	17	73									
	100	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	42	4	47	0	—	1	40	0	—	7	44									
	70	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	2	30	3	44	0	—	0	—	0	—	5	38									
	60	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	42	0	—	2	66	0	—	1	21	0	—	4	49									
	50	0	—	0	—	0	—	0	—	1	48	1	20	1	25	0	—	0	—	1	91	0	—	0	—	0	—	4	46									
	40	0	—	0	—	0	—	0	—	0	—	1	39	0	—	0	—	0	—	1	97	0	—	0	—	0	—	2	64									
	30	1	7	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	0	—	1	—									
	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						
	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—						

N = The number of cases the element has been observed during the month.

TN = The total number of cases the wind has been observed for all directions during the month.

## REVIEW OF AGRO-METEOROLOGICAL STATION

### EL-KASR – APRIL 1966

This month was slightly warmer and less rainy than normal. Mean air temperature was 0.6 °C above normal and total amount of rainfall was 2.8 mm's below normal.

The month was characterised by two heat waves with peaks on 3th and 14th. The most intense heat wave occurred on the 14th when the absolute maximum air temperature was recorded (15.5 °C above normal).

The extreme maximum soil temperatures were higher than the corresponding values of last April except at 50 cms depth where the value was lower by 0.1 °C ; deviations were between 0.3 °C & 3.4 °C. The extreme minima were also higher than the corresponding values of April 1965 - except at 0.3 cm. where the value was lower by 0.4 °C ; deviations varied between 0.3 °C to 2.4 °C.

Mean wind speed at 2 metres height was below the corresponding value of last April by 0.2 metre/sec. Mean daily values of Piche and water Pan evaporation were lower than the corresponding values of April 1965 by 3.9 and 0.55 mm's respectively. Actual total sunshine duration was 14.6 hours more than the corresponding value of last April.

### TAHRIR – APRIL 1966

This month was warmer and slightly drier than April 1965. Mean daily air temperature at 2 metres height above ground level was 1.2 °C above the corresponding value of last April, while mean daily relative humidity and total rainfall were below the corresponding values of April 1965 by 1 % and 2.2 mm's respectively.

The month was characterised by several heat waves; of which only four are worth mentioning, with peaks on 11th, 14th, 24th and 29th. The most intense wave was that occurring on the 14th. Highest daily mean, daytime mean, and extreme maximum air temperature occurred on that day, inaddition to the extreme minimum relative humidity, and the lowest daily mean relative humidity and vapour pressure. On that day occurred the highest instantaneous and mean wind speed, yielding the unique sand-storm occurring in the month. Naturally, on that day occurred the highest evaporation measured by Piche and Pan "A". Due to the passage of the cold front, a decrease of 16.3 °C was recorded in the maximum air temperature.

The extreme maximum soil temperatures were higher than the corresponding values of last April - except at 1 and 2 cms where they were lower by 1.6 °C and 1.1 °C respectively ; deviations varied between 0.1 °C to 1.6 °C. The extreme minima were also higher than the corresponding values of April 1965 - except at 0.3 cms where the value was equal to that of last year ; deviations were between 0.3 °C and 2.9 °C.

Mean wind speed at 2 metres height was below the corresponding value of last April by 0.2 metre/second, while Piche and Pan "A" evaporation were higher than corresponding values of last April by 1.1 & 1.99 mm's respectively. Actual total sunshine duration was 36 hours more than the corresponding value of last April which represent 9% of the possible duration.

### GIZA—APRIL 1966

The month was warmer and fairly drier than normal. Mean daily air temperature at 2 metres height above ground level was 1.4 °C above normal, while mean daily relative humidity and vapour pressure were below normal by 5 % and 0.3 millimetres respectively.

The month was characterised by several heat waves, two of which were intense. The peak of the first intense heat wave occurred the 14th and was associated with the highest daily mean and daytime mean air temperature, the highest mean and extreme wind speed, and the lowest mean daily relative humidity. As a consequence, the highest evaporation occurred on that day. The peak of the second intense heat wave occurred on the 24th and was associated with the extreme maximum air temperature and the extreme minimum/relative humidity.

The extreme maximum soil temperatures at 0.3, 1 and 2 cms were lower than the corresponding values of last April the deviations varied between - 5.6 °C & -3.0 °C. For other depths, the values were higher than the corresponding values of April 1965 by 0.4 °C to 3.2 °C. The extreme minimum soil temperatures, from the surface down to 50 cms were higher than the corresponding values of last April, deviations were between 0.4 °C to 5.6 °C, while for one metre depth, the extreme minimum was 0.2 °C lower than that of last April.

Mean wind speed at 2 metres height was above average by 0.3 metres/second. Also mean Piche and Pan «A» evaporation were above average by 2.9 and 1.09 mms respectively. Actual total sunshine duration was 10 hours above average too.

### KHARGA—APRIL 1966

This month was warmer than normal. Mean daily air temperature at 2 metres above ground was 1.7 °C higher than normal.

The month was characterised by two heat waves. The 1st heat wave was the most distinguished and took place in the period (10th-15th) with its peak on the 14th when the absolute maximum air temperature was recorded. The 2nd heat wave prevailed during the period 22nd to the end of the month with its peak on 28th.

The extreme maximum soil temperatures were lower than the corresponding values of last April — except at 0.3 cms where the value was higher by 0.5 °C and at one metre depth where the value was the same as that of last April, deviations varied between - 2.2 °C and - 0.4 °C. The extreme minima were higher than the corresponding values of April 1965 up to 20 cm depth, deviations were between 0.4 °C and 3.0 °C. The value at 50 cms. depth was the same at that of last April ; while that at 100 cms. depth was lower by — 0.5 °C.

Mean wind speed at 2 metres height was lower than the corresponding value of last April by 0.3 metre/second. Mean Piche evaporation was 1.6 mms lower than the corresponding value of April 1965, while water pan evaporation was higher by 0.20 mms. Total actual duration of bright sunshine was 14.8 hours higher than the corresponding value of last April.

**TABLE C 1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND  
APRIL — 1966**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Kasr . . . . .	23.5	11.9	17.9	15.2	20.1	24.0	24.0	24.0	22.9	17.8	6.5	1.4	0.4	0.1	0.0	0.0
Tahrir . . . . .	29.8	12.9	20.9	17.0	24.2	24.0	24.0	24.0	23.5	18.7	12.2	6.3	2.5	0.7	0.1	0.0
Giza . . . . .	30.5	13.3	21.8	18.5	24.5	24.0	24.0	24.0	23.9	20.3	13.4	7.1	3.2	0.6	0.0	0.0
Kharga . . . . .	34.7	16.2	25.8	22.0	29.1	24.0	24.0	24.0	23.0	18.5	12.4	6.9	2.7	0.2	0.0	0.0

**TABLE C 2. ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND  
OVER DIFFERENT FIELDS**

APRIL — 1966

STATION	Max. Temp. at 2 metres (°C)				Min. Temp. at 2 metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kasr . . . . .	37.6	14	17.5	2	16.8	28	6.8	2	3.2	4	—	—
Tahrir . . . . .	41.0	14	21.3	2	18.7	25	7.2	8	5.3	3.8	—	—
Giza . . . . .	40.1	24	21.0	2	17.6	30	8.4	2	3.8	8	2.9	8
Kharga . . . . .	41.4	14	26.6	2	26.2	30	11.0	3	7.8	3	—	—

**TABLE C 3. (SOLAR + SKY) RADIATION, DURATION OF BRIGHT SUNSHINE HUMIDITY,  
VAPOUR PRESSURE AT 2 METRES EVAPORATION & RAINFALL**

APRIL — 1966

STATION	(Solar+Sky) Radiation gm./cm. <sup>2</sup>	Duration of Bright Sunshine (hours)			Relative Humidity %					Vapour pressure (mms)				Evaporation(mms)		Rainfall (mms)					
		Total monthly	Actual monthly	%	Duration in hours	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200 UT	Highest	Date	Lowest	Date	Piche	Pan class A	Total Amount Monthly	Max. Fall in one day	Date	
		90%	80%																		
El Kasr . . . . .	479.5	297.3	387.7	77	—	—	68	59	12	4	10.6	11.1	14.7	26	4.3	4	13.2	8.62	0.4	0.4	30
Tahrir . . . . .	593.7	303.4	387.0	78	1.6	5.1	54	27	7	14	8.9	7.3	13.5	29	2.8	5	16.3	10.45	0.0	0.0	—
Giza . . . . .	580.5	298.8	386.5	77	0.4	2.6	49	26	8	24	8.5	7.2	13.1	30	3.6	5	17.7	9.74	Tr.	Tr.	30
Kharga . . . . .	540.1	328.0	381.7	86	0.0	0.1	23	15	6	24	5.3	5.5	9.5	16	2.3	25	31.9	15.35	0.0	0.0	—

**TABLE C. 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS (cms)  
IN DIFFERENT FIELDS**

**APRIL — 1966**

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)										Extreme soil temperature (°C) in grass field at different depths (cms.)									
		0.3	1	2	5	10	20	50	100	200	300	0.3	1	2	5	10	20	50	100	200	300
El Ksar . . . .	H	46.6	41.0	40.0	34.2	29.8	25.0	21.8	20.8	20.0	—	—	—	—	—	—	—	—	—	—	—
	L	5.4	7.5	8.2	10.9	13.6	16.4	18.2	18.3	18.7	—	—	—	—	—	—	—	—	—	—	—
Tahrir . . . .	H	52.3	50.0	44.6	42.1	36.6	30.8	27.4	25.2	22.9	22.2	—	—	—	—	—	—	—	—	—	—
	L	7.4	7.9	8.8	12.5	15.0	18.1	20.0	20.4	20.4	21.1	—	—	—	—	—	—	—	—	—	—
Giza . . . .	H	59.0	55.7	54.0	41.0	34.1	28.8	27.1	24.9	23.1	23.4	35.8	31.5	29.4	26.8	24.6	22.6	21.5	20.1	19.7	—
	L	8.3	9.9	10.4	15.3	18.8	21.6	21.9	21.9	22.3	23.3	11.3	11.3	11.2	13.7	14.9	16.6	17.7	17.8	19.1	—
Kharga . . . .	H	—	—	51.0	44.8	37.3	32.8	29.7	27.4	25.8	26.2	—	—	—	—	—	—	—	—	—	—
	L	—	—	12.8	14.9	19.4	22.2	24.2	24.3	24.9	26.0	—	—	—	—	—	—	—	—	—	—

**TABLE C 5.—SURFACE WIND**

**APRIL — 1966**

STATION	Wind Speed m/sec at 2 metres			Days with surface wind speed at 10 metres							Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time mean	≥ 10 knots	≥ 15 knots	≥ 20 knots	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	value	Date
El Ksar . . . .	4.0	3.1	5.2	—	—	—	—	—	—	—	—	—
Tahrir . . . .	3.0	2.3	4.0	29	23	5	1	1	0	0	42	14
Giza . . . .	2.8	2.2	3.5	30	20	3	0	0	0	0	30	14
Kharga . . . .	3.7	2.9	4.8	25	21	10	5	0	0	0	33	1

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**REVIEW OF AGRO-METEOROLOGICAL STATION AT KHARGA  
MARCH 1966**

This month was warmer than normal. Mean daily air temperature at 2 metres above ground was 0.6°C higher than normal.

The month was characterised by two heat waves, the first heat wave occurred between the 5th and the 10th. The 2nd heat wave which was the most intense occurred in the period 23rd to 26th with its peak on 26th giving rise to the absolute maximum air temperature on the 26th (8.5°C above normal). A cold spell took place in the period 16th to 23rd with its peak on 20th, when the lowest air temperature was recorded.

The extreme maxima of soil temperatures at depths 0.3, 2 and 5 cms were higher than the corresponding values of last March, while those of other depths were lower than the corresponding values of March 1965, deviations varied between -0.5°C to -0.1°C. The extreme minimum soil temperatures at all depths from the surface up to 50 cms depth were lower than the corresponding values of last March, deviations were between - 2.5°C to - 0.2°C, while the extreme minimum of 100 cms. depth was higher by 0.1°C than the corresponding value of last March.

Mean wind speed at 2 metres height was the same as that of March 1965. Mean Piche evaporation was higher than the corresponding value of last March by 5.9 mms while that of pan "A" was lower by 0.55 mms. Total actual duration of bright sunshine was higher by 12.0 hours than the corresponding value of last March.

**TABLE C 1.—AIR TEMPERATURE AT 2 METRES ABOVE GROUND  
MARCH — 1966**

STATION	Air Temperature (°C)					Mean Duration in hours of daily air temperature above the following values.										
	Mean Max.	Mean Min.	Mean of the day	Night time mean	Day time mean	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C
El Kasr .....	20.5	9.8	15.0	12.9	17.0	24.0	24.0	24.0	21.5	11.4	2.6	0.5	0.0	0.0	0.0	0.0
Tahrir .....	24.4	9.2	16.2	13.1	19.3	24.0	24.0	24.0	21.1	12.7	6.0	1.4	0.3	0.0	0.0	0.0
Giza .....	24.6	8.7	16.6	13.7	19.4	24.0	24.0	23.9	21.1	14.0	6.5	1.6	0.2	0.0	0.0	0.0
Kharga .....	28.2	10.7	19.8	17.1	22.9	24.0	24.0	24.0	22.7	18.0	14.0	7.5	1.6	0.2	0.0	0.0

**TABLE C 2.—ABSOLUTE VALUES OF AIR TEMPERATURE AT 2 METRES ABOVE GROUND,  
ABSOLUTE MINIMUM AIR TEMPERATURE AT 5cms ABOVE GROUND OVER  
DIFFERENT FIELDS.**

**MARCH — 1966**

STATION	Max. Temp. at 2 metres (°C)				Min. Temp. at 2 metres (°C)				Min. Temp. at 5 cms. above (°C)			
	Highest		Lowest		Highest		Lowest		Dry soil		Grass	
	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date	Value	Date
El Kasr .....	29.0	15	14.9	19	15.8	25	4.8	3	4.1	21	—	—
Tahrir .....	34.8	25	17.9	19	15.0	26	3.8	23	1.7	23	—	—
Giza .....	33.5	25	17.6	19	21.3	26	3.8	23	-0.2	23	—	—
Kharga .....	38.4	26	21.3	20	19.4	27	6.0	15	3.8	5	—	—

**TABLE C 3.—(SOLAR+SKY) RADIATION, DURATION OF BRIGHT SUNSHINE, RELATIVE HUMIDITY, VAPOUR PRESSURE AT 2 METRES ABOVE GROUND, EVAPORATION & RAINFALL.**

**MARCH — 1966**

STATION	(Solar+Sky) Radia-tion gm. cal/cm <sup>2</sup>	Duration of Bright Sunshine (hours)			Relative Humidity. %					Vapour pressure (mms)					Evapo-ration(mms)	Rainfall (mms)			Date		
		Total Actual monthly	Total Possible monthly	%	Duration in hours	Mean of day	1200 U.T.	Lowest	Date	Mean of day	1200	UT	Highest	Date		Piche	Pan class (A)	Total Amount Monthly	Max. Fall in one day		
											90%	80%	>	>							
El Kasr	411.2	258.8	371.2	70	—	—	70	54	19	14	8.5	8.5	12.6	10	3.3	15	12.1	7.21	10.7	6.3	18
Tahrir	497.4	272.5	371.4	73	2.8	5.4	60	34	9	16	7.7	6.9	11.9	9	2.3	18	11.7	6.89	3.3	2.7	13
Giza	483.3	279.1	371.4	75	1.1	4.3	56	32	10	16	7.4	6.6	12.3	26	2.7	18	12.0	6.22	2.1	1.5	12
Kharga	474.1	318.2	372.2	86	0.0	0.1	29	17	6	16	4.6	4.4	10.4	27	1.9	23	24.4	11.87	0.0	0.0	—

**TABLE C 4.—EXTREME SOIL TEMPERATURE AT DIFFERENT DEPTHS  
IN DIFFERENT FIELDS**

**MARCH — 1966**

STATION	Highest (H) Lowest (L)	Extreme soil temperature (°C) in dry field at different depths (cms.)										Extreme soil temperature (°C) in grass field at different depths (cms.)									
		0.3	1	2	5	10	20	50	100	200	300	0.3	1	2	5	10	20	50	100	200	300
El Kaer . . .	H	36.7	33.0	31.6	27.0	24.0	22.0	18.4	18.3	18.8	—	—	—	—	—	—	—	—	—	—	—
	L	4.5	6.4	6.4	8.2	10.0	12.7	15.5	17.2	18.7	—	—	—	—	—	—	—	—	—	—	—
Tahrir . . . .	H	42.6	43.0	36.2	33.6	28.7	24.0	21.1	20.3	20.5	21.2	—	—	—	—	—	—	—	—	—	—
	L	4.3	4.6	5.4	8.9	11.2	14.3	16.9	18.9	19.7	20.7	—	—	—	—	—	—	—	—	—	—
Giza . . . . .	H	52.1	47.8	45.8	32.1	26.8	23.0	21.9	21.8	22.4	24.0	28.7	25.8	23.7	21.6	19.7	18.1	17.7	17.7	19.2	—
	L	3.0	4.8	5.4	10.1	14.7	18.6	20.2	20.7	22.2	23.4	7.0	7.2	7.2	10.0	11.7	14.0	16.2	17.0	19.0	—
Kharga. . . .	H	—	—	44.0	38.0	36.6	27.4	25.3	24.3	25.4	26.6	—	—	—	—	—	—	—	—	—	—
	L	—	—	9.0	11.8	16.8	19.6	21.8	22.7	24.5	26.0	—	—	—	—	—	—	—	—	—	—

**TABLE C 5.—SURFACE WIND**

**MARCH — 1966**

STATION	Wind Speed m/sec at 2 metres			Days with surface wind speed at 10 metres.							Max. Gust (knots) at 10 metres	
	Mean of the day	Night time mean	Day time Mean	≥ 10 knots	≥ 15 knots	≥ 20 knot	≥ 25 knots	≥ 30 knots	≥ 35 knots	≥ 40 knots	value (knots)	Date
El Kaer. . .	4.6	3.9	5.8	—	—	—	—	—	—	—	—	—
Tahrir. . . .	3.1	2.3	4.1	30	21	10	3	2	2	0	47	19
Giza . . . . .	2.6	1.9	3.5	30	20	6	1	0	0	0	36	18
Kharga. . . .	3.7	2.9	4.9	28	23	12	6	2	1	0	41	27